

The Sentinel.

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BUILDING THE DAIRY FARM

Now is the Most Convenient Time of the Year For Such Work

SELECT HIGH DRY GROUND

Plans for Building Barns, Silos and Milk Houses Will Be Furnished Free.

(By C. A. Hutton, Division of Extension, University of Tennessee.)

The late summer and fall months is an excellent time for building barns and milk houses. Farm work is less pressing and the work can be more conveniently done at this season than in cold weather. This is especially true with regard to the building of dairy barns, since the cows can be milked in the barn lot for a few days if it should be necessary to remove the old barn to make room for a new one. Again, it is difficult to put down concrete successfully during cold weather.

One of the first things to consider is the general type of the barn—whether any farm live stock except cows are to be kept in the barn, and the number of animals to be cared for. The best plan is to have the dairy herd in a barn by itself, as there is less confusion, the danger of loss from fire is reduced, and it can be kept more sanitary. Where the dairy herd is small and only a few horses and other live stock are kept a general purpose barn may be used, in which all of the live stock are housed. It is a good plan to store hay above the cows, provided a tight ceiling is provided. Nothing but a self-supporting roof should be used. This increases the hay capacity; there are no posts in the way of the hay; it makes a more durable roof, works much better than a straight roof, and costs practically the same. Bank barns are usually unsatisfactory in the South. They are poorly lighted and poorly ventilated.

Select a convenient location on high, dry ground, easily accessible to fields, water and other buildings. Never build a dairy barn less than 32 feet wide nor more than 36 feet. Less than this width is inconvenient, and more than 36 feet is useless and unnecessary expense. Never put in more than two rows of cows. If horses or other live stock are to be sheltered in the same barn, put them in one end of the barn away from the cows, rather than to one side of the cow stalls, as this would shut off light and ventilation.

The cows may face in or face out, but it is usually considered best to have them face out. They get the fresh air as soon as it enters the barn, and this is the handiest arrangement for milking and cleaning out the barn. Put in at least four square feet of window space for each cow. Concrete makes the most sanitary floor and is cheapest in the end. A stall for an average size Jersey cow should be 3 feet 6 inches wide by 4 feet 6 inches long.

Barn plans, blue prints and advice about the construction of modern dairy barns, silos and milk houses will be furnished free to farmers of the State who will write to the Dairy Specialist, Division of Extension, University of Tennessee.

A GREAT TENNESSEE ORCHARD.

(By Charles A. Ketter, Division of Extension, University of Tennessee.)

At Lansing, Morgan county, there has been planted during the past three years an orchard covering 400 acres of land, and the planting is only begun. Thousands of peach trees came into bearing this year, the owners estimating the crop at one-half-bushel per tree.

The trees are vigorous, with rich, dark green foliage and an abundance of new wood for next year's crop. The young apple trees could not look more promising. The whole orchard shows intelligent care: good pruning has been done, giving to each tree a strong skeleton. Part of the orchard is in cowpeas, to be plowed under as a fertilizer; and a hundred acres is in strawberries which have been well cultivated. This is a commercial orchard in which no shares are for sale; and there is not an enterprise of greater promise in the South.

Uses and Abuses of Fertilizers

By Prof. R. J. H. De Loach, Director of Georgia Experiment Station.

4. FERTILIZERS AND FIELD CROPS.

The Fourth of a Series of Six Articles.

David Dickson, after a life of useful service to his fellow-man and a life of success as a farmer, had the following to say about the use of guano: "I say that farmers can make every acre of their land rich if they will. Providence intended the earth should increase in fertility as rapidly as it does in population. Every man that assists in removing this dormant guano, lying idle and useless on the Chiricahua Islands, and puts it in circulation, creating therewith food and clothing, is a benefactor to his kind. The country suffers for want of a share of the surplus fertilizing material. Remove the deposit and apply to crops, and it will enrich the land."

"I commenced to use guano in 1846, and gradually increased the use of it until the present time, never having omitted to use it on my crops excepting the last year of the war, when I could not obtain it. With the proper system of rotation of crops, and returning all the crops to the land, except the lint of the cotton, land may be improved with Peruvian guano alone, but not so fast as when you combine with the soil all the elements of the plants to be grown. Ammonia being necessary for all plants, I know of no crop that it would not benefit. It will pay the best upon those crops that bring the most money—cotton being that crop in this section and tobacco in other sections."

It will be seen from the above that Mr. Dickson profited greatly by the use of guano. He knew well the value of ammonia to growing crops, but you will observe that he knew quite as well the value of other plant foods to the crop. He got better yields when he applied all the elements of plant food than when he applied ammonia alone. Also observe that he considered it good business to apply fertilizer. He was a business man as well as a farmer, and knew all the keen points in the business world.

Views of Another Millionaire Farmer.

The Hon. James M. Smith, another millionaire farmer of Georgia, who died only a few weeks ago, had the following to say with reference to the use of fertilizers on farm crops:

"The use of fertilizers has become one of the most important factors in Southern agriculture. It is a powerful agency in producing an increased yield—a thing we should desire and work for. We certainly believe in the use of commercial fertilizers, but we also believe in the turning under of vegetable matter, the sowing of legumes and the saving of all barnyard manure. The up-to-date farmer will not consider one of these, but all four of them, in trying to increase his farm crops."

Each of these two farmers, who have done much to stimulate farm improvement, learned the value of fertilizers, but learned equally well the value of diversified farming. They would not decrease the use of fertilizer, but diversify more. They would have us use more fertilizers, so that we could grow more plants and vegetable matter, in turn plow this under, and in this way increase the fertility of our lands. The most effective farming of today involves these two great principles. Use fertilizers and diversify the crops. Rotate and feed the plants, and you will increase your yields, be more secure from plant diseases, and bring your farm into a high state of cultivation.

Put Back Plant Food in the Soil.

If growing crops take plant food out of the soil and we do not plow under an amount equal to this, or get it from some other source and apply it, our land is sure to decrease in fertility and in value. This is a fact beyond dispute. With most of our crops we take from the fields a large amount of nitrogen, phosphoric acid and potash, which never goes back to the place on the farm from whence it came. We should see to it, then, that some kind of plant food takes its place. In the case of cotton, we sell the seed, and with them large amounts of nitrogen and other elements of plant food. Very often we burn the stalks, and in this way take from the field much more valuable plant food. It is suicidal policy for us to remove from the soil more plant food than we restore to the soil.

On a sandy farm in one of the Southern States, which had abandoned by its original owner and sold for fifty cents per acre, a little barnyard manure and heavy applications of fertilizer made another farm rich. The last farmer used \$15 worth of fertilizer per acre and raised 1,400 pounds of seed cotton per acre. This was about a bale per acre on the entire farm. The \$15 investment in fertilizers and good breaking and cultivation netted the thrifty farmer more than \$50 per acre when cotton was bringing a high price.

All the experiment stations and other institutions have found that fertilizers applied to farm crops under good conditions pay a handsome dividend on the investment. It generally means the converting of a nonpaying farm into a profitable farm. This, after all, is what we farm for, for profit as well as some pleasure. The average farmer gets large returns for fertilizers wisely used. If fertilizers do not always pay, it is because farmers waste instead of use them.

My Doctor Said

"Try Cardui," writes Mrs. Z. V. Spell, of Hayne, N. C. "I was in a very low state of health, and was not able to be up and tend to my duties. I did try Cardui, and soon began to feel better. I got able to be up and help do my housework. I continued to take the medicine, and now I am able to do my housework and to care for my children, and I feel as though I could never praise Cardui enough for the benefits I have received."

TAKE The CARDUI Woman's Tonic

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Write for Ladies' Advisory Dept., Chattanooga Medicine Co., Chattanooga, Tenn. for Special Instructions, and 64-page book, "Home Treatment for Women," sent free. 10c

3 — Equals — 25

A startling statement but a true one in this case. One teaspoonful of medicine and two pounds of your own ground feed (cost about 3 cents) equal, in what they do for your animals and fowls, two pounds of any ready-made stock or poultry tonic (price 25 cents). There you are! If you don't believe it, try it out! Buy, today, a can of—

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I will sell for cash and barter a new and complete line of merchandise consisting of Dress Goods, Shoes, Slippers, Men's work Shirts, Overalls, Hats, Underwear, Hosiery, and all other articles in my store. By paying cash I bought these goods low, which allows me sell them at a MONEY SAVING PRICE. A few articles are quoted below.

DRY GOODS

36 inch Percals, good grade, worth 12c, cut to 10c
Very best grade of Percals, worth 15c, cut to 11c
Best grade of Gingham, worth 10c, cut to 9c
Some of the prettiest Dress Goods ever brought to the country at CUT PRICES.
Waist Goods, the ladies will be astonished to see the goods and hear the LOW PRICES:
Best grade Brown Domestic 6 to 8c
Cotton Plaids 6 to 8c
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Pearl Buttons, 3 dozen 5c
Ladies Handkerchiefs 4c
Spool Thread, all colors and sizes 4c
Oil Table Cloth, worth 20c cut to 15c
Notions of all kinds with the prices ALMOST GONE.
Writing Tablets 4c
Ladies Underwear at reduced prices.

MEN'S FURNISHINGS.

Men's best work shirts 45c
Men's best Overalls 90c
Men's dress Shirts 45c
Men's Socks, in black and gray 8c
Men's Pants 75c to \$3.50, but bargains in every pair.
Men's Suspenders 10 to 25c
Men's Handkerchiefs at 4c
Men's Shoes, Hats and Underwear at greatly reduced prices.

GROCERIES.

Though high on the market, my prices will be cheap for a short time.
Good Green Coffee per lb. 10c
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3 cans Salmon 25c
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Sugar as cheap as it can be sold. All other groceries at rock bottom price. Queensware to be give away.

My store is full of Bargains from floor to ceiling and all I ask is chance to show you. Highest market price for all kinds of produce, and square deal to all. Thanking many many friends for past favors, I ask for a continuance of your patronage, as long as I can save you money by selling you all kinds of merchandise at bargain prices. Come today, do not wait until tomorrow, because my goods are bound to sell.

YOURS FOR A SQUARE DEAL.

L. S. DAVIS

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